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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/417,714 10/13/99 HIRAKAWA

T SON-1659

EXAMINER

TM02/0705

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LAO, I

ART UNIT

PAPER NUMBER

2673

DATE MAILED:

07/05/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/417,714

Applicant(s)

Hirakawa et al

Examiner

LAO, LUN-YI

Group Art Unit

2673

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-10 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-10 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of Reference(s) Cited, PTO-892
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

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## DETAILED ACTION

### *Claim Rejections - 35 U.S.C. § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Muraji et al(5,260,797).

As to claim 1, Muraji et al teach a liquid crystal display apparatus comprising a liquid crystal display panel(3, 59, 60, 61)(see figures 1, 3, 5, 6, 8 and column 3, lines 29-39); means for supplying a primary color video signal(R.G.B) and a correction signal for eliminating chrominance non-uniformity; and means for a common voltage(see figures 3, 5, 6, 8; abstract; column 2; lines 32-45; column 5, lines 17-43; column 6, lines 15-68 and column 7, lines 1-47).

### *Claim Rejections - 35 U.S.C. § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muraji et al(5,260,797) in view of Song(5,831,709).

As to claim 2, Muraji et al fail to apply a correction voltage added to a common voltage.

Song teaches an LCD display for adding a correction voltage(a compensating voltage) to a common voltage for eliminating chrominance non-uniformity(see figures 1 4a; column 1, lines 39-50 and column 5, lines 30-68 and column 6, lines 1-3). It would have been obvious to have modified Muraji et al with the teaching of Song, since to compensate a common voltage is more simple than to compensate a video voltage.

5. Claim 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai(6,067,128) in view of Muraji et al(5,260,797).

As to claims 1-10, Imai teaches a liquid crystal display apparatus comprising a white light source(1)(see figure 4; column 1, lines 19-28 and column 6, lines 15-22); a color separation system(see figures 1, 3, 5, 6, 8; column 3, lines 29-39 and column 4, lines 48-63); a liquid crystal display panel(8) for supplying a red video signal and a common voltage at a common line; a liquid crystal display panel(9) for supplying a green video signal and a common voltage at a common line; a liquid crystal display panel(10) for supplying a blue video signal(10) and a common voltage at a common line(see figure 4 and column 6, lines 14-24); a color synthesis system(6) for synthesizing

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the color video image and a lens system(6) for projecting video signals in a left-side-right inverted orientations(see figure 4; column 6, lines 14-24 and lines 55-68; and column 7, lines 1-3).

Imai fails to disclose a chrominance non-uniformity correction signal is superimposed on the video signal.

Muraji et al teaches an LCD projector comprising a chrominance non-uniformity correction circuit(69) for superimposed correction signals to liquid crystal display panels(59, 60, 61)(see figures 3, 8; column 5, lines 16-50 and column 7, lines 1-62). It would have been obvious to have modified Imai with the teaching of Muraji et al, so as to provide a better quality picture on a display.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Oda et al teach an LCD display can correct distortion of a common voltage.

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

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(703) 872-9314, (for formal communications; please mark "EXPEDITED  
PROCEDURE")

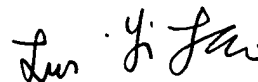
**Or:**

(703) 872-9314 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).

8. Any inquiry concerning this communication should be directed to Lun-yi, Lao at telephone  
number (703) 305-4873.

June 26, 2001



**Lun-Yi Lao**  
**Primary Examiner**